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10/579,390

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EXAMINER

WANG-HURST, KATHY W

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,390	Applicant(s) ECKERT ET AL.	
	Examiner KATHY WANG-HURST	Art Unit 4173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/15/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Preliminary amendment filed on 5/15/2006 has been entered. Claims 1-14 have been cancelled, and claims 15-29 are pending for examination.

Specification

1. The disclosure is objected to because of the following informalities: in [0027] “several discontinuous reception cycles of paging indicators with identical **and/or** different repletion rates are transmitted” does not support claims 17 and 26. In addition, “repletion” should be replaced with “repetition”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15-29 are rejected under 35 U.S.C. 102(b) as being anticipated by **TSG-RAN Working Group 2**, (Definitions and Characteristics of Multicast Channels), cited in the applicant's IDS, herein after referred as **Working Group 2**.

Regarding claim 15, Working Group 2 discloses a method for transmission of data in a radio communication system having subscriber stations, comprising:

informing the subscriber stations of a service which is provided for several subscribers **(page 5 paragraph 3, multicast therefore inform several subscribers)**, prior to the transmission of useful information **(page 5 paragraph 3, control information indicates when data is transmitted, therefore before transmission)**, by providing, via a multimedia broadcast/multicast service-dedicated paging indicator channel **(page 5 paragraph 3, MCCH similar to Paging Channel)**, a paging indicator for service control information on a service control channel **(page 5 paragraph 3, control information on MCCH)**.

Regarding claim 16, Working Group 2 discloses a method in accordance with claim 15, wherein said informing comprises transmitting several discontinuous reception cycles of paging indicators in the multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3, paging channel has a cycle; page 6 Figure 2, transmit several discontinuous reception cycles of paging indicators)**.

Regarding claim 17, Working Group 2 discloses a method in accordance with claim 16, wherein the several discontinuous reception cycles of paging indicators with at least one of identical and different repetition rates are transmitted in the multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3, cycle which is the period corresponding to the number of IMGI groups, therefore identical rate)**.

Regarding claim 18, Working Group 2 discloses a method in accordance with claim 17, wherein the several discontinuous reception cycles of paging indicators are allocated service-specific or service-class specific on the multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3, indicate how long the multicast data burst, therefore service-specific. See page 3 line 6 from the bottom).**

Regarding claim 19, Working Group 2 discloses a method in accordance with claim 18, wherein at least one paging indicator on the multimedia broadcast/multicast service dedicated paging indicator channel contains service identification information for at least one of various services and various types of service **(page 5 paragraph 3, indicate when and how long multicast data therefore service identification information; page 3 line 6 from the bottom, multiple different classes of multicast data).**

Regarding claim 20, Working Group 2 discloses a method in accordance with claim 19, wherein said informing further comprises receiving paging indicator information on a cell paging indicator channel at the subscriber station to acquire the paging indicator using the multimedia broadcast/multicast service dedicated paging indicator channel **(page 7 second paragraph from the bottom, UE knows when to listen to MCCH in advance therefore subscriber station; page 5 paragraph 3 control information is sent on MCCH, a paging channel, therefore service dedicated paging indicator channel).**

Regarding claim 22, Working Group 2 discloses a method in accordance with claim 21, wherein the paging indicator information on the cell paging indicator channel includes an indication of at least one of a service class and a paging-specific sequence number **(page 6 last paragraph, code assignment indicating service information. page 7 item 4), code tree is used for variable multimedia services).**

Regarding claim 23, Working Group 2 discloses a method in accordance with claim 19, wherein said informing further comprises periodically receiving paging indicators of discontinuous cycles on the multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3, cycles).**

Regarding claim 24, Working Group 2 discloses a base station for transmission of data in a radio communication system, comprising:
means for informing subscriber stations prior to transmission of useful information as a service that is provided for several subscribers **(page 5 paragraph 3),** and
means for creating and transmitting, to subscriber stations, paging indicators for service control information on a service control channel, using a multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3).**

Regarding claim 25, Working Group 2 discloses a base station in accordance with claim 24, further comprising means for transmitting several discontinuous reception cycles of

the paging indicators on the multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3; and page 6 Figure 2, several cycles)**.

Regarding claim 26, Working Group 2 discloses a base station in accordance with claim 25, wherein said means for transmitting several discontinuous reception cycles of the paging indicators on the multimedia broadcast/multicast service dedicated paging indicator channel uses at least one of identical and different repetition rates **(page 5 paragraph 3, cycle which is the period corresponding to the number of IMG1 groups, therefore identical rate)**.

Regarding claim 27, Working Group 2 discloses a base station in accordance with claim 26, further comprising means for allocating several discontinuous reception cycles of paging indicators on the multimedia broadcast/multicast service dedicated paging indicator channel to at least one of specific services and specific service classes **(page 5 paragraph 3; and page 7 item 4) code tree indicating different services)**.

Regarding claim 28, Working Group 2 discloses a subscriber station for performing a method for transmission of data, comprising:

means for receiving paging indicators at said subscriber station using a multimedia broadcast/multicast service dedicated paging indicator channel, with either paging indicators of discontinuous reception cycles on the multimedia broadcast/multicast service dedicated paging indicator channel being periodically received or paging

indicator information being received on a cell paging indicator channel to acquire a paging indicator on the multimedia broadcast/multicast service dedicated paging indicator channel, and with the paging indicators provided for service control information on a service control channel **(page 5 paragraph 3)**.

Regarding claim 29, Working Group 2 discloses a radio communication system for transmission of data, comprising:

at least one base station including

means for informing subscriber stations prior to transmission of useful information as a service that is provided for several subscribers **(page 5 paragraph 3; page 7 second paragraph from the bottom, UE knows when to listen to MCCH in advance therefore subscriber station)**, and

means for creating and transmitting, to subscriber stations, paging indicators for service control information on a service control channel, using a multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3)**; and

at least one subscriber station including means for receiving paging indicators at said subscriber station using the multimedia broadcast/multicast service dedicated paging indicator channel, with either paging indicators of discontinuous reception cycles on the multimedia broadcast/multicast service dedicated paging indicator channel being periodically received or paging indicator information being received on a cell paging indicator channel to acquire a paging indicator on the multimedia broadcast/multicast service dedicated paging indicator channel **(page 5 paragraph 3)**.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Working Group 2 in view of **Kim et al. (US 7242919)**, herein after referred as Kim.

Regarding claim 21, Working Group 2 discloses a method in accordance with claim 20 (**page 7**) but fails to disclose a method wherein the paging indicator information on the cell paging indicator channel contains several bits for indicating service information on the multimedia broadcast/multicast service dedicated paging indicator channel. **Kim** teaches a multimedia broadcast and multicast service (MBMS) paging method in which a MBMS service parameter represented by bits is added to the reserved 12 bits of PICH frame structure (**col. 4 lines 30-38; col. 5 lines 13-19**). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the several bits in the paging frame taught by Kim into the method disclosed by Working Group 2 in order to improve the efficiency of the paging method by carrying additional information in the existing frames without using additional frames to save energy.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Choi (US 2004/0180675) discloses a method for transmitting and receiving control messages in a mobile communication system providing MBMS service.

Goldberg (US 2004/0063442) discloses a method for enabling multicast services and user equipment battery savings.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571)270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571)272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATHY WANG-HURST/
Examiner, Art Unit 4173

/Lewis G. West/
Primary Examiner, Art Unit 2618